Application No. 09/445,174 Filing Date: April 24, 2000 Docket No. 294-78 Page 2 of 18

DRAFT

In the claims:

Please amend claims 15, 20-24, 38, 46 and 55 as follows:

(All the pending claims, 15-55 are reproduced for the Examiner's convenience)

- 15. (Amended) A diagnostic test kit for detecting the presence of or predisposition for breast cancer, wherein a means is provided for detecting a deletion of a stretch of nucleotides from a BRCA1 gene in a sample, wherein said deletion comprises at least a major part of exon 13 and/or at least a major part of exon 22
- 16. A diagnostic test kit according to claim 15, wherein the means comprises at least one probe for hybridization.
- 17. A diagnostic test kit according to claim 15, wherein the means comprises the necessary elements for Southern blotting.
- 18. A diagnostic test kit according to claim 16, wherein the probe comprises a sequence complementary to sequences on both sides of the deletion in the BRCA1 gene.
- 19. A diagnostic test kit according to claim 17, wherein the necessary elements for Southern blotting comprises a probe, the probe comprising a sequence complementary to sequences on both sides of the deletion in the BRCA1 gene.
- 20. (Amended) A diagnostic test kit according to claim 15, wherein the deletion comprises all of exon 13 and/or exon 22 of the BRCA1 gene.
- 21. (Amended) A diagnostic test kit according to claim 16, wherein the deletion comprises all of one exon 13 and/or exon 22 of the BRCA1 gene.

Application No. 09/445,174 Filing Date: April 24, 2000 Docket No. 294-78 Page 3 of 18

- 22. (Amended) A diagnostic test kit according to claim 17, wherein the deletion comprises all of exon 13 and/or exon 22 of the BRCA1 gene.
- 23. (Amended) A diagnostic test kit according to claim 18, wherein the deletion comprises all of exon 13 and/or exon 22 of the BRCA1 gene.
- 24. (Amended) A diagnostic test kit according to claim 19, wherein the deletion comprises all of exon 13 and/or exon 22 of the BRCA1 gene.
- 25. A diagnostic test kit according to claim 15, wherein the deletion comprises a frame shift and/or a termination codon.
- 26. A diagnostic test kit according to claim 16, wherein the deletion comprises a frame shift and/or a termination codon.
- 27. A diagnostic test kit according to claim 17, wherein the deletion comprises a frame shift and/or a termination codon.
- 28. A diagnostic test kit according to claim 18, wherein the deletion comprises a frame shift and/or a termination codon.
- 29. A diagnostic test kit according to claim 19, wherein the deletion comprises a frame shift and/or a termination codon.
- A diagnostic test kit according to claim 20, wherein the deletion comprises a frame shift and/or a termination codon.
- 31. A diagnostic test kit according to claim 15, wherein the deletion comprises a deletion of a stretch of nucleotides between two ALU-elements.

Application No. 09/445,174 Filing Date: April 24, 2000 Docket No. 294-78 Page 4 of 18

- 32. A diagnostic test kit according to claim 16, wherein the deletion comprises a deletion of a stretch of nucleotides between two ALU-elements.
- 33. A diagnostic test kit according to claim 17, wherein the deletion comprises a deletion of a stretch of nucleotides between two ALU-elements.
- 34. A diagnostic test kit according to claim 18, wherein the deletion comprises a deletion of a stretch of nucleotides between two ALU-elements.
- 35. A diagnostic test kit according to claim 19, wherein the deletion comprises a deletion of a stretch of nucleotides between two ALU-elements.
- 36. A diagnostic test kit according to claim 20, wherein the deletion comprises a deletion of a stretch of nucleotides between two ALU-elements.
- 37. A diagnostic test kit according to claim 25, wherein the deletion comprises a deletion of a stretch of nucleotides between two ALU-elements.
- 38. (Amended) A probe for use in a diagnostic test kit for detecting the presence of or predisposition for breast cancer, wherein a means is provided for detecting a deletion of a stretch of nucleotides from a BRCA1 gene in a sample, and wherein the deletion comprises at least a major part of exon 13 and/or at least a major part of exon 22; said probe comprising a nucleotide sequence which is a fusion of two ALU elements of the BRCA1 gene.
- 39. A probe for use in a diagnostic test kit according to claim 38, wherein the means comprises at least one probe for hybridization, the probe comprising a nucleotide sequence which is a fusion of two ALU elements of the BRCA1 gene.

Application No. 09/445,174 Filing Date: April 24, 2000 Docket No. 294-78 Page 5 of 18

- 40. A probe for use in a diagnostic test kit according to claim 38, wherein the means comprises the necessary elements for Southern blotting, comprising a nucleotide sequence which is a fusion of two ALU elements of the BRCA1 gene.
- 41. A probe for use in a diagnostic test kit according to claim 18, comprising a nucleotide sequence which is a fusion of two ALU elements of the BRCA1 gene.
- 42. A probe for use in a diagnostic test kit according to claim 19 comprising a nucleotide sequence which is a fusion of two ALU elements of the BRCA1 gene.
- 43. A probe for use in a diagnostic test kit according to claim 20 comprising a nucleotide sequence which is a fusion of two ALU elements of the BRCA1 gene.
- 44. A probe for use in a diagnostic test kit according to claim 25 comprising a nucleotide sequence which is a fusion of two ALU elements of the BRCA1 gene.
- 45. A probe for use in a diagnostic test kit according to claim 31 comprising a nucleotide sequence which is a fusion of two ALU elements of the BRCA1 gene.
- 46. (Amended) A probe for use in a diagnostic test kit according to claim 15, wherein the deletion comprises at least a major part of exon 13 and/or at least a major part of exon 22, and wherein the probe comprises a fusion product of two sequences adjacent to the site of a deletion of a stretch of nucleotides.
- 47. A probe for use in a diagnostic test kit according to claim 16, which is a fusion product of two sequences adjacent to the site of a deletion of a stretch of nucleotides.

Application No. 09/445,174 Filing Date: April 24, 2000 Docket No. 294-78 Page 6 of 18

- 48. A probe for use in a diagnostic test kit according to claim 17, which is a fusion product of two sequences adjacent to the site of a deletion of a stretch of nucleotides.
- 49. A probe for use in a diagnostic test kit according to claim 18, which is a fusion product of two sequences adjacent to the site of a deletion of a stretch of nucleotides.
- 50. A probe for use in a diagnostic test kit according to claim 19, which is a fusion product of two sequences adjacent to the site of a deletion of a stretch of nucleotides.
- 51. A probe for use in a diagnostic test kit according to claim 20, which is a fusion product of two sequences adjacent to the site of a deletion of a stretch of nucleotides.
- 52. A probe for use in a diagnostic test kit according to claim 25, which is a fusion product of two sequences adjacent to the site of a deletion of a stretch of nucleotides.
- 53. A probe for use in a diagnostic test kit according to claim 31, which is a fusion product of two sequences adjacent to the site of a deletion of a stretch of nucleotides.
- 54. A probe for use in a diagnostic test kit according to claim 38, which is a fusion product of two sequences adjacent to the site of a deletion of a stretch of nucleotides.
- (Amended) A method of determining the presence in a sample of a nucleic acid derived from a BRCA1 gene having a deletion of a stretch of nucleotides, comprising contacting said sample with at least one probe which alone or together with a second means for detecting said deletion of a stretch of nucleotides from a BRCA1 gene, distinguishes between BRCA1 genes having said deletion and BRCA1 genes not having said deletion, allowing hybridization between said probe and said nucleic acids to form a hybridization product and identifying the hybridization product, wherein

Application No. 09/445,174 Filing Date: April 24, 2000 Docket No. 294-78 Page 7 of 18

DRAFT

said deletion comprises at least a major part of exon 13 and/or at least a major part of exon 22.